

IN THE CLAIMS:

Please AMEND claims 66-70 and 72-76, and ADD new claim 77, as follows. Note that all the claims currently pending in this application, including those not currently amended, have been reproduced below for the Examiner's convenience.

1-64. (Canceled)

65. (Previously Presented) An illuminator comprising:

an illumination system which illuminates a surface to be illuminated with luminous light from a light source, wherein said illumination system has one optical element, which has a titanium oxide film formed on only the periphery of its surface.

66. (Currently Amended) An illuminator according to claim 65, wherein ~~said~~ the luminous flux comprises ultraviolet light, and ~~said~~ the titanium oxide film prevents a ~~containment~~ contaminant from adhering to and contaminating a surface of the ~~unit~~ optical element provided with ~~said~~ the titanium oxide film by a photoconductive function caused by the absorption of ~~said~~ the ultraviolet light.

67. (Currently Amended) An illuminator according to claim 65, wherein ~~said unit~~ the optical element comprises at least one of a lens, a mirror, a prism, a filter, a diffuser, a diffraction optical element, and an optical integrator.

68. (Currently Amended) An illuminator according to claim 65, wherein ~~said optical unit~~ the optical element comprises a diffraction optical lens using a diffraction optical element.

69. (Currently Amended) An illuminator according to claim 65, wherein ~~said the~~ titanium oxide film is provided on the surface of a portion of a region of ~~said optical unit~~ the optical element in which light passes through.

70. (Currently Amended) An exposure apparatus comprising:  
an illumination system for illuminating a pattern on a mask with luminous light from a light ~~source and exposing a wafer with the pattern, said exposure apparatus~~  
~~comprising:~~ source;  
a projection system for projecting the pattern onto a wafer; and  
~~one~~ an optical element, which has a titanium oxide film formed on only ~~the~~ a periphery of its surface.

71. (Previously Presented) An exposure apparatus according to claim 70, wherein a titanium oxide film is provided on the surface of at least one region of a supporting unit for supporting at least one optical unit.

72. (Currently Amended) An exposure apparatus according to claim 70, wherein ~~said unit~~ optical element comprises at least one of a diaphragm, a shutter, and a lens barrel.

73. (Currently Amended) An exposure apparatus according to claim 70, wherein said optical ~~unit~~ element comprises at least one of a lens, a mirror, a prism, a filter, a diffuser, a diffraction optical element, and an optical integrator.

74. (Currently Amended) An exposure apparatus according to claim 70, wherein said optical ~~unit~~ element comprises a mirror.

75. (Currently Amended) An exposure apparatus according to claim 70, wherein said titanium oxide film is provided on the surface of a portion of a region of said optical ~~unit~~ element in which light passes through.

76. (Currently Amended) An exposure apparatus according to claim 70, wherein exposure is performed while the pattern on ~~said~~ the mask and ~~said~~ the wafer are synchronously scanned.

77. (New) A device manufacturing method comprising:  
an exposing step for exposing the wafer by using the exposure apparatus according to claim 70; and  
a developing step for developing the exposed wafer.